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FROM THE AMERICAN PEOPLE

Safe Drinking Water Partnerships

Uniting Forces to Ensure Safe Water

More than 1.1 billion people in the world lack access to an improved source for their drinking water, and many more lack access to water that is safe to drink

Introduction / Problem Statement

Every year there are over 1.8 million deaths from diarrhea related to unsafe water, sanitation, and hygiene — the vast majority among children under 5. To address this critical public health issue, USAID is engaged in a range of partnerships to improve water quality and hygiene.

Simple household-level water treatment and safe storage interventions can lead to dramatic improvements in drinking water quality, with typical reductions in diarrhoeal disease of 30-50% or more — making an immediate difference to the lives of those who rely on drinking water from polluted rivers, lakes, and, in some cases, unsafe wells or piped water supplies.

Products

Household-level, or point-of-use (POU), chlorination is one approach that has been tested at national scale and demonstrated to have public health impact on diarrhea as well as sufficiently low cost to allow wide coverage. USAID is currently promoting two approaches to POU chlorination — the Safe Water System developed by the U.S. Centers for Disease Control and Prevention (CDC) and PuR™ developed by Procter and Gamble.

CDC's Safe Water System was developed in response to the cholera epidemics in South America in the early 1990s, and includes three components: treatment of water at the point-of use using locally-produced sodium hypochlorite solution (see photo of Chlorin at left); safe water storage in containers with a narrow mouth to reduce the risk of water contamination; and behavior change promotion to sustain safe treatment and storage practices, as well as related behaviors, such as effective handwashing with soap. *(http://www.usaid.gov/our_work/environment/water/wwf3.factsheets/safe.water.system.pdf)*

Procter & Gamble (P&G) has developed a POU water treatment product, PuR Purifier of Water™, which is made available to non-profit organizations at P&G's production cost. The product is a small sachet containing a powdered flocculant and a time-release chlorine -based disinfectant. To use PuR™, users open the sachet, add the contents to 10 liters of water, stir for 5 minutes, let the solids generated by the flocculant settle to the bottom of the bucket, strain the water through a cotton cloth into a second bucket, and wait 20 minutes for the hypochlorite to inactivate the microorganisms. PuR™ is effective in treating turbid water with high levels of suspended solids, an advantage over chlorination alone, but has a higher unit cost per liter of water treated. (see photo of PuR™, sachet at left) *(http://www.pghsi.com/images/PUR_kyoto.pdf)*

Partnerships

USAID has used several partnership models to promote POU chlorination:

Public-private partnerships: As one of USAID's Global Development Alliances, USAID has supported The Safe Drinking Water Alliance, a public-private collaboration to develop innovative program approaches for ensuring the safety of household drinking water. USAID, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, CARE, PSI, and Procter & Gamble joined forces to leverage their respective expertise and resources to better understand the behaviors and motivations for choosing particular technologies for treating household water, share the knowledge gained, and identify opportunities for scaling up successful efforts to ensure safe drinking water. The focus was on working with the PuR™ product with three program approaches — a commercial approach relying on P&G's marketing and distribution channels, a "social" approach relying on marketing and distribution through not-for-profit NGOs, and distribution during emergency and humanitarian crises such as the 2006 earthquake in Pakistan. P&G determined that the commercial approach was not viable, and so most effort has focus on the social model and humanitarian assistance. Not unexpectedly, the importance of on-going intensive behavior change communications to ensure sustained adoption of POU treatment and safe storage were critical to successful efforts. *(http://www.jhuccp.org/topics/safe_water/safe_drinking_04-15-04.pdf)*

Integration with other health activities: Point-of-use with Zinc. This recently-awarded contract with two different consortia is to promote both household water treatment and the use of zinc for diarrhea treatment. The award to Abt Associates and other partners offers the opportunity to build on existing USAID-supported social marketing activities at country level, while the award to the Academy for Education Development (AED) and other partners focuses on a public-private partnership model engaging manufactures. Both awards have the capacity to work to develop commercial partnerships for product development, marketing, and distribution, useful for both POU and zinc.

Integrate POU with a broader hygiene programs: Hygiene Improvement Project (HIP) The Hygiene Improvement Project, implemented by a consortium led by the Academy for Educational Development (AED) builds on USAID's thirty years of investments in water, sanitation and hygiene. HIP provides a strong focus on improvements at large scale in three key hygiene practices: safe feces disposal, proper handwashing with soap, and point-of-use water treatment and safe storage. Each of these interventions typically results in a 30-40% reduction in diarrheal prevalence in children under five. HIP's approach is to strengthen partnerships, coordinate efforts between the various actors involved in health and hygiene, and to engage the private and commercial sectors to ensure availability of products and services.

Support networks: The International Network to Promote Household Water Treatment and Safe Storage. USAID is an active member of this network since it was formed in 2003, with the Secretariat housed at the World Health Organization in Geneva. The mission of the Network is to contribute to a significant reduction in waterborne disease, especially among vulnerable populations, by promoting household water treatment and safe storage as a key component of water, sanitation and hygiene programs. Members include government offices or Ministries working in health and water quality, local governments considering household-level pilot projects, NGOs carrying out projects in communities or training implementers, universities, companies developing products, and other stakeholders. *(http://www.who.int/household_water/en/)*

Technical assistance partnerships: USAID works closely with the Centers for Disease Control and Prevention (CDC)'s to provide technical assistance through CDC on Safe Water System and related activities. *(http://www.cdc.gov/safewater/)*

Additional source: Charlene Porter/Washington File